

## **REMARKS**

### **A. Restriction Requirement**

Applicants note with appreciation that the Restriction Requirement mailed on December 18, 2002 has been withdrawn in the Office Action mailed on February 26, 2003.

### **B. 35 U.S.C. § 103**

#### **1. Paquet and Beatenbough**

##### **a. Claims 1-8**

In the Office Action of February 26, 2003, claims 1-8 were rejected under 35 U.S.C. §103 as being obvious in view of Paquet and Beatenbough. Claim 1 has been amended to clarify that the first set of condenser tubes has an end tube that contains a refrigerant. In contrast, Paquet discloses that the end tubes 11-1 and 11-2 are screened from the circulation of the fluid and thus could be used to perform the function of conventional “cheeks”. (Col. 2, l. 60 – Col. 3, l. 3). In other words, the end tubes 11-1 and 11-2 do not contain a refrigerant. Since Beatenbough does not disclose or suggest inserting a refrigerant in Paquet’s end tubes 11-1 and 11-2, the rejection is overcome and should be withdrawn.

The rejections of claims 3 and 4 are improper for the additional reason that there is no disclosure or suggestion in either Paquet or Beatenbough to have Paquet use supercooling tubes (claim 3) or supercooling tubes that are less in number than the remaining tubes (claim 4). Without such suggestion, the rejection is improper and should be withdrawn.

The rejection of claim 8 is improper for the additional reason that there is no disclosure or suggestion in either Paquet or Beatenbough to have a depression in Paquet’s collector 2. The

Office Action has based its rejection on a lack of criticality or unexpected result from using such a depression. Applicants traverse this rejection in that there is no requirement under Section 103 to show criticality or unexpected results for patentability. The only question is whether or not it would have been obvious to use a depression in Paquet's collector 2. Since the rejection has not answered this question, a *prima facie* case of obviousness has not been established and so the rejection is improper and should be withdrawn. Applicants also invite the Examiner to review U.S. Patent Application Serial No. 09/753,298 which describes a depression.

b. Claims 19-24

Claims 19-24 were rejected under 35 U.S.C. §103 as being obvious in view of Paquet and Beatenbough. Applicants traverse this rejection. Claim 19 recites that a liquid phase of a refrigerant "is contained exclusively within said first set of condenser tubes and said second set of condenser tubes irrespective of the thermodynamic conditions within said condenser." Paquet does not disclose or suggest such a property for the liquid phase within its condenser. Beatenbough does not disclose or suggest Paquet's liquid phase having such a property. Instead, Beatenbough discloses using an enlarged header 36 to accept excess liquid refrigerant from the tubes 38. Thus, the liquid phase in Beatenbough's tubes 38 is not contained exclusively in the tube 38. Since there is no disclosure or suggestion in either Paquet or Beatenbough to design Paquet's condenser so that the liquid phase is contained exclusively in the tubes 11 of Paquet, the rejection is improper and should be withdrawn.

The rejections of claims 22 and 23 are improper for the additional reason that there is no disclosure or suggestion in either Paquet or Beatenbough to have Paquet use supercooling tubes (claim 22) or supercooling tubes that are less in number than the remaining tubes (claim 23).

Without such suggestion, the rejection is improper and should be withdrawn.

**2. Paquet, Beatenbough and Poles et al.**

Claims 9-15 and 17-18 were rejected under 35 U.S.C. §103 as being obvious in view of Paquet, Beatenbough and Poles et al. Claim 9 has been amended to clarify that the first set of condenser tubes has an end tube that contains a refrigerant. As shown above in Section B.1.a, neither Paquet nor Beatenbough suggest having Paquet's end tubes 11-1 or 11-2 contain a refrigerant. Since Poles et al. also does not suggest having Paquet's end tubes 11-1 or 11-2 contain a refrigerant, the rejection is overcome and should be withdrawn.

The rejections of claims 11 and 12 are improper for the additional reason that there is no disclosure or suggestion in either Paquet, Beatenbough or Poles et al. to have Paquet use supercooling tubes (claim 11) or supercooling tubes that are less in number than the remaining tubes (claim 12). Without such suggestion, the rejection is improper and should be withdrawn.

**3. Paquet and Poles et al.**

Claims 25 and 27-33 were rejected under 35 U.S.C. §103 as being obvious in view of Paquet and Poles et al. Applicants traverse this rejection. Claim 25 recites a condenser where a liquid phase of a refrigerant "is contained exclusively within said first set of condenser tubes and said second set of condenser tubes irrespective of the thermodynamic conditions within said condenser." As mentioned above in Section B.1.b, Paquet does not disclose or suggest such a property for the liquid phase within its condenser. Poles et al. does not disclose or suggest Paquet's liquid phase having such a property. Without such suggestion, the rejection is improper and should be withdrawn.

The rejections of claims 29 and 30 are improper for the additional reason that there is no

disclosure or suggestion in either Paquet or Poles et al. to have Paquet use supercooling tubes (claim 29) or supercooling tubes that are less in number than the remaining tubes (claim 30).

Without such suggestion, the rejection is improper and should be withdrawn.

Please note that claim 27 has been amended to correct an obvious error in the preamble. Since the correction does not change the intended meaning of the claim, the amendment is not being presented for reasons of patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), overruled in part, 535 U.S. 722, 122 S. Ct. 1831 (2002).

#### 4. Paquet, Poles et al. and Beatenbough

Claim 26 was rejected under 35 U.S.C. §103 as being obvious in view of Paquet, Poles et al. and Beatenbough. Claim 26 depends on claim 25. As mentioned above in Section B.3, neither Paquet nor Poles et al. disclose or suggest having Paquet's liquid phase of a refrigerant contained exclusively within tubes 11 of Paquet. Since Beatenbough also does not disclose or suggest having Paquet's liquid phase contained exclusively within tubes 11 of Paquet, the rejection is overcome for reasons similar to those given above in Section B.3 with respect to claim 25.

Please note that claim 26 has been amended to correct an obvious error in the preamble. Since the correction does not change the intended meaning of the claim, the amendment is not being presented for reasons of patentability as defined in *Festo*.

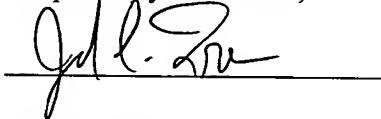
#### C. Claim 16

Applicants note that claim 16 has not been rejected based on the prior art. Accordingly, claim 16 should be deemed to contain allowable subject matter in the next Office Action.

## CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 1-33 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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